CLAIMS

1. A negative electrode material for non-aqueous electrolyte secondary batteries, comprising: a carbon material having a sphericity of at least 0.8, and exhibiting an average (002) interlayer spacing d_{002} of 0.365 - 0.400 nm, a crystallite size in a c-axis direction $Lc_{(002)}$ of 1.0 - 3.0 nm, as measured by X-ray diffractometry, a hydrogen-to-carbon atomic ratio (H/C) of at most 0.1 as measured by elementary analysis, and an average particle size Dv_{50} of 1 - 20 μm.

2. A negative electrode material according to claim 1, comprising a carbonization product of a vinyl resin.

3. A negative electrode material according to claim1 or 2, having a bulk specific gravity of at least 0.40 and below 0.60.

4. A negative electrode material according to any one of claims 1-3, having a ratio D_4/D_1 of at most 3.0 between a weight-average particle size D_4 and a length average particle size D_1.

5. A negative electrode material according to any one of clams 1-4, having a product of a specific surface area S (m^2/g) and an average particle size Dv_{50} (μm) of 3 - 40.

6. A negative electrode material according to any one of claims 1-5, exhibiting an exothermic peak temperature of at least 600°C.

7. A negative electrode material according to any one of claims 1-6,

comprising a surface of the carbon material coated with 0.1 - 10 wt.% of a silicon compound .

8. A negative electrode material according to any one of claims 1-7, containing 0.5 - 5 wt.% of nitrogen.

9. A process for producing a negative electrode material for non-aqueous electrolyte secondary batteries according to any one of claims 1-8, comprising; oxidizing a spherical vinyl resin obtained through suspension polymerization to oxidation at a temperature of 150 - 400°C in an oxidizing gas atmosphere to provide a carbon precursor and carbonizing the carbon precursor in an inert gas atmosphere.

10. A negative electrode for non-aqueous electrolyte secondary batteries, having a layer of active substance comprising a negative electrode material according to any one of claims 1-8 and formed at a coating rate of at most 60 g/m^2.

11. A non-aqueous electrolyte secondary battery having a negative electrode according to claim 10.